

CEDAR CHEMICAL CORPORATION

24th Floor • 5100 Poplar Avenue • Memphis, TN 38137 • 901-685-5348

May 13, 1992

Mr. Marshall Bishop
Drilling Specialties Company
309 Short Street
Bartlesville, OK 74004

Dear Marshall:

Null
Use these prices for
the December 92 run
GLD

This letter is to confirm our recent conversations regarding Cedar's prices for the conversion of D8, C0800, and C0300. In the Fall of 1989 Cedar offered to maintain the prices for these products constant for a two-year period in exchange for some concessions on forecasting and timing by Phillips. During this period, Cedar in cooperation with Phillips continued to evaluate productivity and waste disposal issues for C0300, with the productivity issue related to the toll price and the waste issue a go, no go decision for Cedar regarding production of C0300 beyond the two-year period. The two-year program is now complete. It was extended into early 1992 due to our mutual agreement to split the run of products in the Fall of 1991 into two separate campaigns.

At this time, Cedar can continue to produce C0300 at the current levels and handle the waste generated at its on site biotreatment plant. However, productivity dictates that we must increase the toll fee from \$0.33 a pound of C0300 to \$0.70 per pound of C0300. We also feel it is appropriate to adjust the price of D8 and C0800 based upon the normal increase in cost of supplies, wages, etc and would propose a price of \$0.21 for D8 and \$0.22 for C0800. In an effort to simplify the billing procedures, we propose to drop the 5% surcharge on those raw materials purchased by Cedar and also the \$0.03 per pound of TGA for handling the TGA in drums. For D8, this will offset the proposed \$0.02 per pound increase in toll fee by approximately \$0.01 per pound of D8. For C0800, this will offset the proposed increase by approximately \$0.004 per pound of C0800.

The most recent attempt to convert off specification C0800 returned from the field into specification C0300 was a costly venture for Cedar, since the process is not defined. Regretfully, we must decline to attempt this processing in the future until Phillips is able to provide us with a suitably optimized process.

For the on site disposal of C0300 waste through Cedar's biological treatment system, we propose to continue the existing fee of \$0.0171 per pound of waste.

9349982



Cedar has produced the Orfom products for a number of years at what we consider to be very competitive prices based upon the concept of using them as fill ins between regularly scheduled production. In retrospect this concept was not viable. When you consider the raw materials involved, the process technology, and the safety and environmental issues, Cedar has been required to treat Orfom products in the same manner as for any other product that it handles. Plant preparation, cleanout, safety reviews, operator training, etc have been consistent with other products made at relatively infrequent intervals. For this reason, we must ask that the above prices be considered applicable only to combined runs of Orfom products which meet a minimum of \$250,000 of combined revenue for Cedar. Based upon current ordering patterns, this should not be a problem for Phillips.

There remains the questions of supply of allyl chloride. We do not understand Shell's proposal to offer allyl chloride in drums as a substitute for the material shipped in a tank truck. This would seem to contradict their concern over safety, since the potential for exposure to personnel handling drums is an order of magnitude greater than that for a tank truck. We can understand their concern over the return of a partially used tank truck. It appears to us that the safest method of handling this material would continue to be use of tank trucks with the CO300 run carefully designed to consume complete tank truck quantities. The use of a dedicated storage facility would not appear to be cost effective. Since the product is only used for approximately one-month of the year, we would be faced with either storing residual quantities of allyl chloride for eleven-months between production runs or cleaning out the tank between production runs, neither of which would seem to meet the stability and safety concerns expressed by Shell.

You indicated that you might require a production run before the end of 1992. To soften the harsh economics delivered above, we are prepared to discount Orfom prices from the above schedule by \$0.01 per pound for D8 and CO800 and \$0.05 per pound for CO300 produced before the end of 1992. We have heavy production activity in the last quarter of 1992, thus any Orfom production would need to be scheduled in the third quarter or before.

We hope that you will find this proposal satisfactory and we can continue to make Orfom products for Phillips. Please contact me, if any clarification of this proposal is required.

Sincerely,



Geoffrey L. Pratt
Director of Custom Manufacturing

mc

PURCHASE ORDER

No.

1 — 574875

Cedar Chemical Corporation

Highway 242 South

W. Helena, AR 72390

DATE February 19, 1992

CHANGE #2

AND MAIL TO COMPANY SHOWN BELOW SEPARATE ITEMIZED AND EXTENDED INVOICE IN TRIPLICATE FOR EACH SHIPMENT, SHOWING ABOVE ORDER NO. INCLUDING PREFIX AND SUFFIX.

PURCHASER— PHILLIPS CHEMICAL COMPANY
A SUBSIDIARY OF PHILLIPS PETROLEUM COMPANY

Phillips Mining Chemicals

309 Short Street

Bartlesville, OK 74004

PHILLIPS CHEMICAL COMPANY

A SUBSIDIARY OF PHILLIPS PETROLEUM COMPANY

NO CHANGE FROM ORIGINAL P.O.

SHIP BY

☐ 1 PREPAID UNINSURED - UNITED PARCEL SERVICE OR PARCEL POST IF PACKAGE MEETS REGULATIONS, OTHERWISE THE LEAST EXPENSIVE OF MOTOR FREIGHT OR EXPRESS

☐ 2 MOTOR FREIGHT

ROUTE

☐ 3 OTHER

F.O.B. DEST.

F.O.B. ORIGIN

REFER ALL INQUIRIES TO: Phillips Chemical Co., 309 Short St.,
Bartlesville, OK 74004

CHARGE TO

RFE NO.

INVOICES, PACKING LISTS AND TAGS SHOULD SHOW

CHARGE AND IF APPLICABLE,

PHILLIPS STOCK NUMBER

ITEM NO.	QUANTITY	DESCRIPTION
1	NO CHANGE	
2	105,000	C0800 (refill the empty C0800 drums that were shipped from Houston with fresh C0800)
3	NO CHANGE	
CONFIRMING ONLY -- DO NOT DUPLICATE		
THIS PURCHASE ORDER INCLUDING THE DESCRIPTION OF MERCHANDISE, EQUIPMENT AND ACCESSORIES, IS MADE A PART OF THE ORDER. IT IS THE POLICY OF PHILLIPS CHEMICAL COMPANY TO FURNISH A COPY OF THIS ORDER TO THE PURCHASER AND TO THE SHIPPER. THE PURCHASER SHALL BE RESPONSIBLE FOR THE SHIPPER'S COMPLIANCE WITH THE ORDER. THE PURCHASER SHALL BE RESPONSIBLE FOR THE SHIPPER'S COMPLIANCE WITH THE ORDER. THE PURCHASER SHALL BE RESPONSIBLE FOR THE SHIPPER'S COMPLIANCE WITH THE ORDER.		

IF TERMS AND CONDITIONS SHOWN (INCLUDING THOSE ON REVERSE SIDE) ARE UNACCEPTABLE, REVISE BEFORE ENTERING ORDER



FORM 4128-N 6-84 ORIGINAL

By

Cynthia L. Beck



PURCHASE ORDER

No. 1 — 574875 —

Cedar Chemical Corporation

Highway 242 South

W. Helena, AR 72390

DATE June 26, 1991

AND MAIL TO COMPANY SHOWN BELOW SEPARATE ITEMIZED AND EXTENDED INVOICE IN TRIPLICATE FOR EACH SHIPMENT, SHOWING ABOVE ORDER NO. INCLUDING PREFIX AND SUFFIX.

PURCHASER — PHILLIPS CHEMICAL COMPANY
A SUBSIDIARY OF PHILLIPS PETROLEUM COMPANY

PHILLIPS CHEMICAL COMPANY

A SUBSIDIARY OF PHILLIPS PETROLEUM COMPANY

Item 1: Plains Plant

Borger, TX

Items 2&3: Friendly Public Warehouse

4845 Homestead, Suite 503

Houston, TX 77025

Phillips Mining Chemicals

309 Short Street

Bartlesville, OK 74004

SHIP BY

V
I
A☐ 1. PREPAID UNINSURED-UNITED PARCEL SERVICE OR PARCEL POST IF PACKAGE MEETS REGULATIONS, OTHERWISE THE LEAST EXPENSIVE OF MOTOR FREIGHT OR EXPRESS☐ 2. MOTOR FREIGHT☐ 3. OTHER☐ PPD☐ COL☐ PPD☐ COL

ROUTE

F.O.B. DEST.

F.O.B. ORIGIN

REFER ALL INQUIRIES TO: (IF NO ADDRESS IS SHOWN BELOW, SEND INQUIRIES TO PHILLIPS PETROLEUM CO., PURCHASING, BARTLESVILLE, OK, 74004)

CHARGE TO

INVOICES, PACKING LISTS AND TAGS SHOULD SHOW

CHARGE AND IF APPLICABLE, PHILLIPS STOCK NUMBER

ITEM NO.	QUANTITY	DESCRIPTION
1	300,000#	CO300 (to be shipped bulk via Miller Transport to Plains Plant, Borger, TX)
2	70,000#	CO800 (to be shipped in 550# drums to Friendly Public Warehouse, Houston, TX)
3	170,000#	D-8 (to be shipped in 2850# bulk drums to Friendly Public Warehouse, Houston, TX)
		HAVE ALL FREIGHT INVOICES SENT TO: Cynthia L. Beck Phillips Mining Chemicals 309 Short Street Bartlesville, OK 74004
		CEDAR CHEMICAL TO SUPPLY THE FOLLOWING:
	148,215#	CS2 (carbon disulfide)
	102,342#	Caustic (dry basis) (204,684# of 50%)

IF TERMS AND CONDITIONS SHOWN (INCLUDING THOSE ON REVERSE SIDE) ARE UNACCEPTABLE, REVISE BEFORE ENTERING ORDER



ORIGINAL

FROM 918-661-5174

By *Cynthia L. Beck*

TOTAL P.01

06-26-91 09:41 AM

P01

XC: BC
MOP
JK

NR ✓
TZ

TELEPHONE: 1-800-221-1956
TELEX: 49-2466 DSB
FAX: 918-661-5174

Info
DHT
12/7

DATE: Feb 7, 1992

TO: Geoff Pratt

FROM:

COMPANY: Cedar

M. Bishop

LOCATION: Memphis, TN

PANAFAX #: 901-684-5398

COPIES: _____



Including cover page, there are 1 pages in this Panafax.

MESSAGE: As we discussed in our phone
conversation yesterday we need to
change our production run again.
We will issue a change #2 to the
P. O.

We now need to change the C0800 production
from 0 to approx 105,000 lbs. We
can rework the drums of C0800 from Houston
converting it to C0300 and refill the
drums with fresh C0800.
Operator sending Panafax: _____ Date: _____ Time: _____

Phone Number: _____

I sincerely apologize for the changes.

Marshall

CC: BC MP
JK NR ✓
TL JW

LATEST WORD FROM GEOFF 1600 ON 2/6 RE: PHILLIPS RUN

D-8 NEEDED 340,000 LBS (SAME AS BEFORE)

CO-800 NEEDED APROXIMATELY 104,892 (ENOUGH TO REFILL THE 192 DRUMS
THAT WE'RE EMPTYING TO REWORK INTO CO-300)

CO-300 NEEDED:

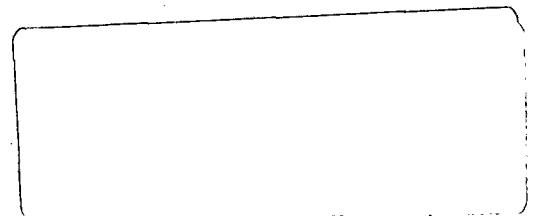
ORIGINAL DEMAND	300,000
MADE IN SEPT	116,700
LEFT TO MAKE	183,300
MAKE FROM CO-800 REWORK (104,892 # CO-800 TIMES 0.53):	55,593
CO-300 MADE FROM SCTRATCH	127,707

THERE IS SUPPOSED TO BE SOME WRITTEN DOCUMENTATION COMING ALONG.

BIG NEWS IS THAT WE'RE NOW SUPPOSED TO MAKE CO-800. LET'S FIGURE
OUT HOW MANY FULL BATCHES COMES CLOSE TO THE 192 EMPTY CO-800
DRUMS THAT WE'LL HAVE FROM THE REWORK.

PLEASE LET ME KNOW WHAT THIS ALL MEANS - I'M VERY CONFUSED!

DVH
2/6/92



1991

C0300	300,000	lbs	.33¢
C0800	70,000	lbs	.20¢
D-8	170,000	lbs	.19¢

148,215 lbs CSZ +5%

102,342 lbs CAUSTIC (204,684 50%) +5%

TGA IN DRUMS ADDITIONAL .03 per lb of TGA

C0300 WASTE TREATMENT @ .0171

WW TO PONDS

CEDAR INTERNAL CORRESPONDENCE

DATE: 7/24/90

TO: John Miles

FROM: Geoffrey L. Pratt

CC: Neil Robbins
Charlie Parker

SUBJECT: Phillips Orfom Runs

Would you arrange to have the computer report which tracks productivity and raw material consumption mailed to Marshall Bishop on a weekly basis during Orfom runs. He should also receive the adjusted summary report showing the same information once the final physical inventory adjustments have been made.

Marshall told me that he recently approved an invoice for truck freight and demurrage on a shipment of C0300 from January of 1990! He asked, that when Cedar sends the final billing for a campaign of Orfom products, that we attach a list of unbilled pass through items for which Cedar is awaiting an invoice, from the vendor. The unbilled items should have an identification number so that Phillips' accounting department can process a delayed invoice against the project purchase order when that invoice is finally submitted.

Please let me know, if clarification of this request is needed.


Geoffrey L. Pratt

mc

CEDAR INTERNAL MEMO
WEST HELENA PLANT

DATE: June 27, 1990

TO: Geoff Pratt

FROM: Charlie Parker

CC: Orfom production

RE: J. Miles
R. Johns
J. Walker

N. Robbins
G. Satterfield

Per your request, I have contacted Phillips concerning immediate production start-up for the Orfom products. Cynthia Beck instructed me to use the Purchase Order number 0-D000931 for all three products. The order will be for:

<u>Product</u>	<u>Quantity</u>	<u>Shipping Container</u>
D-8	230,000 lbs	500 gal. bulk-tainer
C-0800	250,000 lbs	55 gal drums
C0300	200,000 lbs	Tank Trucks

The TGA will again be supplied in drums. We will begin production when the raw materials arrive, hopefully July 11, 1990.



PURCHASE ORDER

No. **9-D001144**

Cedar Chemical Corporation

P.O. Box 2279

Memphis, TN 38101

DATE **February 23, 1990**

AND MAIL TO COMPANY SHOWN BELOW SEPARATE ITEMIZED AND EXTENDED INVOICE IN TRIPLICATE FOR EACH SHIPMENT, SHOWING ABOVE ORDER NO. INCLUDING PREFIX AND SUFFIX.

PURCHASER— **PHILLIPS CHEMICAL COMPANY**
A SUBSIDIARY OF PHILLIPS PETROLEUM COMPANY

Phillips Mining Chemicals

309 Short Street

Bartlesville, OK 74004

SHIP BY

- ☐ 1 PREPAID UNINSURED - UNITED PARCEL SERVICE OR PARCEL POST IF PACKAGE MEETS REGULATIONS; OTHERWISE THE LEAST EXPENSIVE OF MOTOR FREIGHT OR EXPRESS
- ☐ 2 MOTOR FREIGHT ☐ PPD. ☐ COL. ☐ ROUTE
- ☐ 3 OTHER ☐ PPD. ☐ COL.
- F.O.B. DEST. ☐ F.O.B. ORIGIN ☐

PHILLIPS CHEMICAL COMPANY

A SUBSIDIARY OF PHILLIPS PETROLEUM COMPANY

Phillips Mining Chemicals

c/o Cedar Chemical Corporation

Highway 242

West Helena, AR 72390

REFER ALL INQUIRIES TO: Phillips Chemical Co., 309 Short St.,
Bartlesville, OK 74004

CHARGE TO

INVOICES, PACKING LISTS AND TAGS SHOULD SHOW CHARGE AND IF APPLICABLE, PHILLIPS STOCK NUMBER

ITEM NO.	QUANTITY	DESCRIPTION
1	470,440#	D-8 TAX EXEMPT - FOR RESALE
2	164,450#	C0800
3	116,140#	C0300
CONFIRMING ORDER - DO NOT DUPLICATE		
IF TERMS AND CONDITIONS SHOWN (INCLUDING THOSE ON REVERSE SIDE) ARE UNACCEPTABLE, REVISE BEFORE ENTERING ORDER		



FORM 4127-N 6-84 ORIGINAL

By

Cynthia L. Beck



CEDAR CHEMICAL CORPORATION

P.O. Box 2749, Hwy. 242 S. • West Helena, AR 72390
(501) 572-3701 • Fax No. 501-572-3795

11/21/89

Marshall Bishop
Phillips Mining Chemicals
309 Short Street
Bartlesville, OK 74004

Dear Marshall,

I would like to take this opportunity to confirm our recent conversations regarding the present Orfom products campaign. These items are:

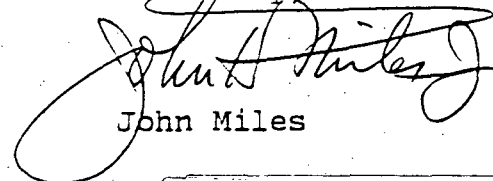
1. TGA will be supplied in drums. Cedar will be paid \$0.03 per pound of TGA to cover the additional handling costs. D-8 product will be packaged back into the used, rinsed drums.
2. Cedar will rework 56 drums of old CO-800 into CO-300. Cedar will be paid \$0.06 per pound of CO-800 reworked in addition to the C-0300 production fee. cost of disposal of the old rums will be billed to Phillips.

In addition to the above items, I would like to confirm, per conversation with Geoff Pratt, that the billing price for your products will increase, effective this campaign, to the following:

D-8	from \$0.17 to \$0.19 per pound
CO-800	from \$0.18 to \$0.20 per pound
CO-300	from \$0.30 to \$0.33 per pound

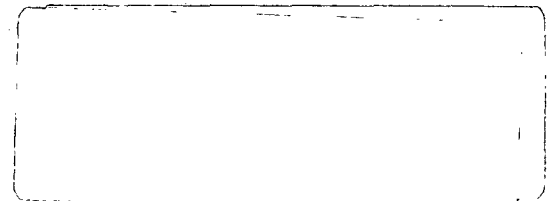
If you have any questions concerning the above, please call me.

Sincerely,



John Miles

cc: Neil Robbins
Charlie Parker
Geoff Pratt



11/20/89

Marshall Bishop
Phillips Mining Chemicals
309 Short Street
Bartlesville, OK 74004

Dear Marshall,

I would like to take this opportunity to confirm our recent conversations regarding the present Orfom products campaign. These items are:

1. TGA will be supplied in drums. Cedar will be paid \$0.03 per pound of D-8 to cover the additional handling costs. D-8 product will be packaged back into the used, rinsed drums.
2. Cedar will rework 56 drums of old CO-800 into CO-300. Cedar will be paid \$0.06 per pound of CO-800 reworked. Cost of disposal of the old drums will be billed to Phillips.

In addition to the above items, I would like to confirm, per conversation with Geoff Pratt, that the billing price for your products will increase, effective this campaign, to the following:

D-8	from \$0.17 to \$0.19 per pound
CO-0800	from \$0.18 to \$0.20 per pound
CO-0300	from \$0.30 to \$0.33 per pound

If you have any questions concerning the above, please call me.

Sincerely,

John Miles

Dec 89

PO# 9-D001142

D-8 475,000

CO800 170,000

CO300 108,000

CC: Neil
Charlie



CEDAR CHEMICAL CORPORATION

P.O. Box 2749, Hwy. 242 S. • West Helena, AR 72390
(501) 572-3701 • Fax No. 501-572-3795

1989
D-8 & C0800

Production Summary - 1989

D-8 March & April 513,000[✓]lb in 570 lb/net drums

<u>Raw Materials</u>	<u>Usage</u>	<u>1989 Yield</u>	<u>Recipe</u>	<u>1988 Yield</u>	<u>1987 Yield</u>
TGA	114,520 lbs. ^{115,305}	.2232	.2214	.2220	.2213
CS ₂	75,035 lbs. ✓	.1462	.1435	.1436	.1447
NAOH	213,080 lbs. ✓	.4153	.4076	.4039	.4683

C0800 May 105,450[✓]lbs. in 570 lb/net drums

<u>Raw Materials</u>	<u>Usage</u>	<u>1989 Yield</u>	<u>Recipe</u>	<u>1988 Yield</u>
N. Bush	24,980 ^{24,796}	.2368	.2320	.2390
NAOH	32,900 ✓	.3119	.3050	.3090
CS ₂	17,060 ✓	.1617	.1620	.1640

cc: John Miles
Tom Lodice
Greg Satterfield
Ken Howard
Neil Robbins

FROM: Charlie Parker

CEDAR CHEMICAL CORPORATION

1989

P.O. 9-0001011

520,000 lbs	D-8	e .17
100,000 lbs	CO-800	e .18

CEDAR INTERNAL CORRESPONDENCE

DATE: 10/7/88

TO: Johh Miles

FROM: Charlie Parker

cc: R. Johns K. Howard
 J. Walker T. Lodice
 G. Satterfield N. Robbins

SUBJECT: Phillips Production

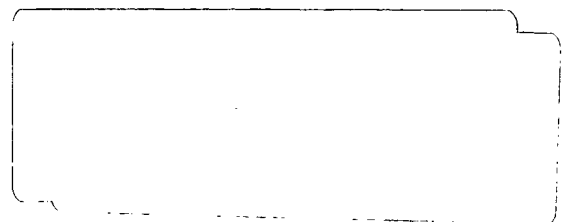
D-8

Total lbs. to produce 332,200
 Requested in bulk 135,000
 Requested in drums 197,000

C-0800

Total lbs. to produce 214,800
 Requested in bulk 80,000
 Requested in drums 134,800
 (will not have CS₂ to produce this much)

EXPECTED D-8 START-UP 10/13/88



TERMS AND CONDITIONS

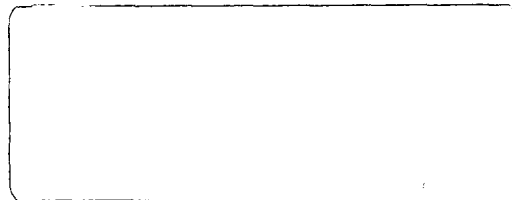
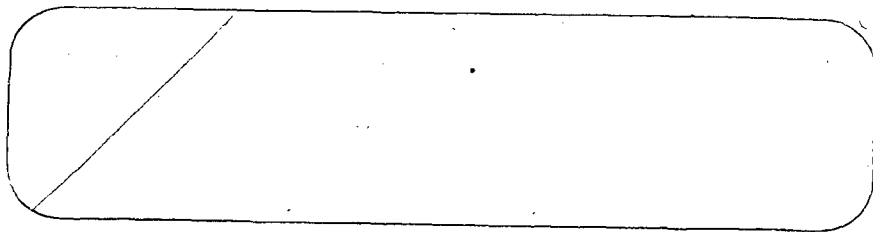
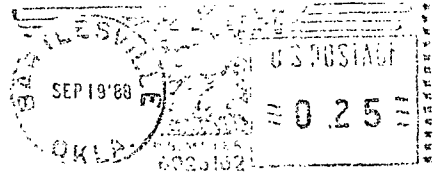
1. The Uniform Commercial Code (U.C.C.) of the Purchaser's "BILL TO" location, or other applicable commercial law where the U.C.C. has not been adopted in Purchaser's "BILL TO" location, shall, to the extent it is not inconsistent with the provisions of this Purchase Order, be utilized to construe and govern this Purchase Order and performance hereunder.
2. In addition to any other applicable mode of acceptance, delivery of any goods specified in this Purchase Order will constitute acceptance of this Purchase Order with all its Terms and Conditions and will constitute Vendor's certification that goods delivered hereunder have been produced or certified to Vendor as produced in accordance with the Fair Labor and Standards Act of 1938, as amended.
3. Vendor shall advise at once if unable to meet specified shipping date(s). Time is of the essence of this Purchase Order and Purchaser reserves the right to cancel this order at any time if specified shipping date(s) is (are) not met.
4. Vendor shall assure that each shipment contains a packing slip listing contents. Purchaser's count will be accepted as final and conclusive on all shipments not accompanied by a packing slip.
5. No minimum order charges, or charges for packing, cartage, insurance or value charges by any mode of transportation shall be payable or paid by Purchaser unless so specified on this Purchase Order.
6. Vendor shall show all applicable cash discounts on all invoices. When invoices are not mailed on invoice date, discount period will be computed from date of invoice receipt.
7. Prepaid Shipment charges must be supported by copy of Bill of Lading and Carriers receipted bill. Collect shipments must be computed from date received.
8. Concerning orders of goods worth \$10,000 or more where Vendor has not previously signed an annual agreement with Purchaser agreeing to comply with all Federal Equal Employment Opportunity and Nondiscriminatory Regulations, Phillips Form 3039 is attached and acceptance of this Order will indicate your agreement to comply with the regulations covered by it.
9. Vendor agrees to show Purchaser's item numbers and description on all invoices.
10. Vendor shall maintain a true and correct set of records pertaining to the work performed hereunder and all transactions related thereto for a period of at least two years after completion of this purchase order. Any representative authorized by the Purchaser may audit such records for the sole purpose of determining whether there has been compliance with the following paragraph:

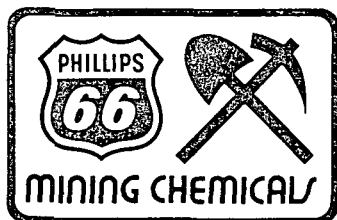
Vendor shall not pay any commissions, fees, or grant any rebates, to any employee or officer of the Purchaser for his personal or private benefit, nor favor employees or officers of the Purchaser with gifts or entertainment of significant cost or value, nor enter into any business arrangements with employees or officers of the Purchaser which benefit them, personally or privately, for services they perform as Purchaser representatives.
11. THIS PURCHASER ORDER, INCLUDING THE DESCRIPTION OF MERCHANDISE, EQUIPMENT AND/OR ACCESSORIES, ALONG WITH ANY PROPOSAL, BID, QUOTATION OR OTHER DOCUMENT ATTACHED HERETO, EXPRESSLY REFERENCED HEREIN AND MADE A PART HEREOF, IS AN OFFER TO PURCHASE AND ACCEPTANCE IS EXPRESSLY LIMITED TO THE TERMS AND CONDITIONS SET OUT IN SUCH OFFER. ANY ACCEPTANCE, PROPOSAL, BID, QUOTATION OR OFFER NOT SO MADE A PART HEREOF WHICH STATES TERMS ADDITIONAL TO OR DIFFERENT FROM THOSE SO OFFERED HEREIN SHALL NOT BE BINDING ON PURCHASER AND PURCHASER HEREBY REJECTS ANY SUCH ADDITIONAL OR DIFFERENT TERMS AND CONDITIONS UNLESS SUCH ADDITIONAL OR DIFFERENT TERMS ARE AGREED TO IN WRITING BY PURCHASER.



PHILLIPS 66 COMPANY

BARTLESVILLE, OKLAHOMA 74004





309 Short Street
Bartlesville, Oklahoma 74004
Telephone: 918-661-8617
Telex: 49-2455
TWX: 910-841-2560

February 4, 1988

Confirming Purchase Order
MDB-7-88

Cedar Chemical Corporation
24th Floor
5100 Poplar Avenue
Memphis, TN 38137

Attention: Geoffrey L. Pratt

Dear Mr. Pratt:

The attached purchase order confirms our conversation and the verbal purchase order for the manufacture of Orfom D8, and Orfom CO300. As per the P.O. we would like you to produce approximately 300,000 pounds of D8 and 109,000 lbs of CO300. Your quoted conversion fee of \$0.17/lb for D8 and \$0.30/lb for CO300 is acceptable.

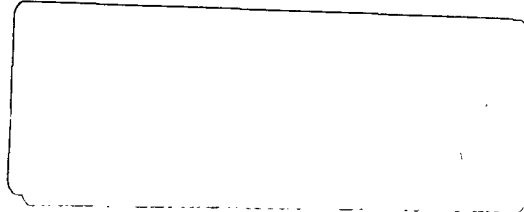
It is agreeable to us for you to continue handling feedstock purchases and waste disposal charges and invoicing those charges back. We do believe we can save some money on freight especially on the TGA. Therefore, we request that you consult with Sheila Price (918-661-8617) regarding shipping.

Anticipated feedstock usage and costs are as follows:

Carbon disulfide	84,240 lbs	at \$0.21/lb
Sodium hydroxide	164,000 lbs of 50%	at \$0.10/lb
Thioglycolic acid	66,411 lbs of 80%	at \$1.54/lb
n-butyl mercaptan	48,000 lbs	at \$0.60/lb
Allyl chloride	40,728 lbs	at \$0.71/lb
Waste disposal		at \$0.32/gal.

If feedstock costs are greater than 5% above those anticipated, we require that you advise us before purchase.

It is my understanding that manufacture will commence the first part of March, 1988. I also believe we agreed that the n-butyl mercaptan would be supplied in a railcar for ease in handling.



No. 8 — D000640 — G

No. 8 — D000640 — G

STAPC

Memphis, TN 38137

SHOW OUR ORDER NO. AND CONSIGNEE ADDRESS ON ALL SHIPPING PAPERS AND TAGS

PHILLIPS CHEMICAL COMPANY
A SUBSIDIARY OF PHILLIPS PETROLEUM COMPANY.

Phillips Mining Chemicals

(Address to be given for each release

REFER ALL INQUIRIES TO: Phillips Chemical Co., 309 Short St.,
Bartlesville, OK 74004

DATE _____

CHARGE

AND MAIL TO COMPANY SHOWN BELOW SEPARATE ITEMIZED AND EXTENDED INVOICE IN TRIPLICATE FOR EACH SHIPMENT, SHOWING ABOVE ORDER NO. INCLUDING PREFIX AND SUFFIX.

PURCHASER— PHILLIPS CHEMICAL COMPANY
A SUBSIDIARY OF PHILLIPS PETROLEUM COMPANY

Phillips Mining Chemicals

SHIP BY

V
I
A

☐ 1 PREPAID UNINSURED - UNITED PARCEL SERVICE OR PARCEL POST IF PACKAGE MEETS REGULATIONS; OTHERWISE THE LEAST EXPENSIVE OF MOTOR FREIGHT OR EXPRESS

☐ 2 MOTOR FREIGHT☐ PPD

ROUTE

☐ 3 OTHER

COL

F.O.B. DEST. ☐

F.O.B. ORIGIN

INVOICES, PACKING LISTS AND TAGS SHOULD SHOW:

CHARGE AND IF APPLICABLE.

PHILLIPS STOCK NUMBER

CHARGE
TO

RFE
NO.

ITEM

QUANTITY

DESCRIPTION

1.	300,000#	Orfom D-8 (approximately)	Tax Exempt-For Resale
----	----------	---------------------------	-----------------------

2. 109,000# Orfom C0300 (approximately)

CONFIRMING ORDER

IF TERMS AND CONDITIONS SHOWN (INCLUDING THOSE ON REVERSE SIDE) ARE UNACCEPTABLE, REVISE BEFORE ENTERING ORDER



FORM 4127-N 6-84 ORIGINAL

By

Members



February 4, 1988

Page 2

Regarding: Confirming Purchase Order

I have attached a revised Orfom D8 operating procedure showing the weight of TGA and water corrected for using 80% thioglycolic acid.

Sincerely,

Marshall

M. D. Bishop

MDB:mg

cc: R. E. Michels
Sheila Price

Enclosure

revised 2/3/88

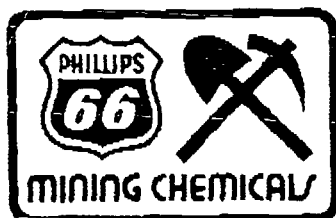
OPERATING PROCEDURES
ORFOM D-8 - 1000 LB BATCH

1. Charge caustic (NaOH) from tank using pump - 407.6 lbs (50% soln).
2. Vent reactor to scrubber.
3. Turn on mixer.
4. Full cooling water flow to reactor.
5. Charge water - 227.5 lbs (32.6 gal).
6. Charge mercapto acetic acid (thioglycolic acid, $\text{HS-CH}_2\text{-CO}_2\text{H}$) 221.37 pounds of 80% active controlling the charge rate so that temperature does not rise above 130° F (54° C).
7. Hold temperature at 120° F (49° C) for 30 minutes after all TGA has been added.
8. Charge carbon disulfide (CS_2) 143.5 lbs controlling the charge rate so that temperature does not rise above 130° F (54° C).
9. Hold temperature at 120° F (49° C) for one hour after all CS_2 has been added.
10. Sample reactor product and test for following:
 - pH - minimum 12.0
 - Flash point - (PMCC ASTM D93) greater than 100° F
 - Disodium carboxy methyl trithiocarbonate - 35% minimum

TYPICAL PHYSICAL PROPERTIES:

Density at 60°F/16°C	10.8 lbs/gal/1.29 g/cc)
Flash Point, TCC	110°F/43°C
Pour Point	30°F/-1°C
Kinematic Viscosity	5.44
(cst @ 70°F)	

Neil



309 Short Street
Bartlesville, Oklahoma 74004
Telephone 918-661 8617
Telex: 40 2455
TWX: 910-841 2560

August 28, 1987

Manufacture of Mining Chemicals

MDB-62-87

Cedar Chemical Corporation
24th Floor
5100 Poplar Avenue
Memphis, TN 38137

Attention: Geoffrey L. Pratt

Dear Jeff:

The attached purchase order confirms our conversations concerning the manufacture of two chemicals, tradenamed Orfom[®] D8, and Orfom[®] C0300. These products are disodium carboxy methyl trithiocarbonate and allyl n-butyl trithiocarbonate, respectively. Your quoted conversion cost of \$0.20 per pound of product is acceptable.

The smallest bulk quantity of carbon disulfide available is 8000 gallons (84,240 pounds). The synthesis of about 158,000 pounds of D-8 and 164,000 pounds of C0300 would use the full railcar load of CS₂. These quantities would consume about 28,000 pounds of thioglycolic acid, 72,000 pounds of n-butyl mercaptan, 61,000 pounds of allyl chloride, and 127,000 pounds of 50% caustic.

For the initial synthesis run we prefer you to purchase all feedstocks and dispose of waste solutions, billing us your invoice cost. Anticipated feedstock costs are as follows:

carbon disulfide	\$0.21/lb
sodium hydroxide	\$0.10-\$0.12/lb
thioglycolic acid	\$1.40-\$1.50/lb
n-butyl mercaptan	\$0.57/lb
allyl chloride	\$0.71/lb
waste disposal	\$0.32/gallon

If costs are greater than 5% above those anticipated, we require that you advise us.

Manufacture of Mining Chemicals

-2-

August 28, 1987

A sample of the waste stream from the CO300 manufacture will be sent to you in the near future.

Sincerely,

Marshall

Marshall D. Bishop

MDB: mg

cc: R. M. Parlman
W. S. Stewart
R. E. Michels

Attachment

CEDAR INTERNAL CORRESPONDENCE

DATE: 8/28/87

TO: Tom Lodice

FROM: Charlie Parker

CC: John Miles
Neil Robbins
Geoff Pratt
John Whitsitt

Greg Satterfield
Ken Howard

SUBJECT: Phillips Raw Materials

Below are the price quotes for raw materials to be used in the Phillips project.

Carbon Disulfide

PPG Bridget Nance 800-323-7302

Railcar Price .21/lb. FOB Houston, Tx.

.045/lb. Frt.

84,320 lb. .255/lb.

Thioglycolic Acid

Cardinal Chemical Mrs. Ross 803-799-7190

Tank Truck Price 2.20/lb. FOB Columbia, S.C.

.17/lb. Frt. Rubber lined truck - round trip

18,000 lb. 2.37/lb.

Allyl Chloride

Shell Chemical Lloyd Dixon 713-241-6161

Tank truck price .71/lb. Delivered

66,000 lb.

N-Butyl Mercaptan

Phillips 66 Joe Singletary 800-858-4327

Tank Truck Price .61/lb FOB Border, Tx.

.04/lb. Frt.

77,000 lb. .65/lb.

50% Caustic

Chem-Tech Beverly 800-238-7433

Tank Truck Price 160.00/ton 100% Basis

.08/lb. FOB Memphis

.005/lb. Frt.

108000 lb. ASIS .085/lb.

Sodium Hypochlorite

Thompson Hayward Sue 901-948-3321

Tank Truck .45/gallon

.04/lb. FOB Memphis

.005/lb. Frt.

.045

CEDAR CHEMICAL CORPORATION

24th Floor • 5100 Poplar Avenue • Memphis, TN 38137 • 901-685-5348

August 6, 1987

cc: Tom L.
Neil R.
Charlie P.
Joe P.
Shy S.

Mr. Marshall Bishop
Special Projects Manager
Phillips 66 Company
309 Short Street
Bartlesville, Oklahoma 74004

Dear Marshall:

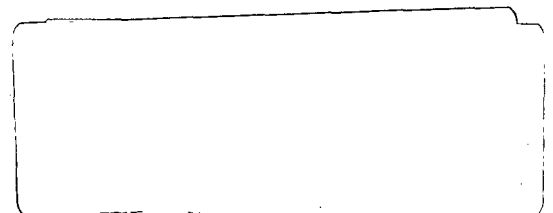
We enjoyed having you at our West Helena Plant last week and hope the visit was helpful to you in assessing our toll manufacturing capabilities.

As we agreed, I am confirming the verbal proposal made to you for the production of 200,000 - 300,000 lbs. of ORFOM D-8 and ORFOM C0300. For an initial campaign we propose a processing fee of 20 cents per lb. of either product. This fee includes all production and quality control costs but excludes the cost of raw materials, transportation to and from the plant and off-site waste disposal. Waste disposal does not appear to be an issue for ORFOM D-8. For ORFOM C0300 we estimate that off-site deep well disposal would cost approximately 32 cents per gallon of aqueous waste which would be billed to your account at our cost.

If you can provide us with the characterization of the aqueous waste we can make a determination as to its suitability for treatment in our system which usually results in a lower waste treatment cost.

If you wish Cedar to purchase any raw materials we will do so after providing you with estimated costs and will bill you at the actual delivered cost based on the freight, and material suppliers invoices.

We are unable to accurately project future tolling price trends until we have gained experience with the products. However, we anticipate that meaningful tolling price relief would require significantly larger annual volumes, either of these current products, or a combination of these products and others.



Mr. Marshall Bishop
August 6, 1987
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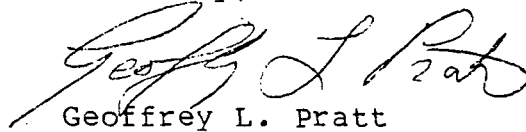
Assuming that the processes proceed as you have described we would see no difficulty in maintaining continuity of supply for your market for D-8, and CO300.

For the initial campaign we plan to use the raw materials directly out of the road containers to minimize plant contamination. We have agreed to size the campaign around a rail car of carbon bisulphide. You indicated that the D-8 should be packaged in drums and the CO300 will be shipped in bulk. The packaging cost is included in our fee but the cost of drums and any demurage associated with the campaign would be to your account. The plant is available immediately.

We hope that this campaign will be the beginning of a long relationship with Phillips 66. Please call if this quotation requires clarification or if additional issues need to be covered.

We appreciate you considering Cedar for your project.

Sincerely,

A handwritten signature in dark ink, appearing to read "Geoffrey L. Pratt", written in a cursive style.

Geoffrey L. Pratt
Director of Operations
Custom Manufacturing

GLP:nm

cc: Mr. Ron Cheves
Mr. John Miles

To

CEDAR INTERNAL CORRESPONDENCE

DATE: 12-7-92.

To: Dave Hoppel

FROM: Norman Rowan

CC

CC: { Tom Lodice
Neil Robbins

SUBJECT: Allyl Chloride Tank
CAR S9225-1790 closure

Work has been completed on the installation of the Allyl Chloride tank. Work included tank and pump installation, piping and instrumentation. The total cost went over due to purchase of special fittings for truck unloading and repair to the tank. The total costs related to this project are 16,395.00 as of 12-9-92. There will be no other charges to this account.

xc: G. PRATT
Info
DWH
1/4

This doesn't look like Phillips contributed to the problem of over spending. I don't plan to ask Phillips to cover beyond whatever the remainder of the 1992 discount covers. I would guess about \$10,000.

GLF
1/22

FALL 1992

Phillips

D-R 250,000

.21

CO-300 120,000

.70

CO-800 170,000

.22

.73,900

92 only

less .01 * = .20

less .05 * = .65

less .01 * = .21

No 5%

No 3% ON TGA ON DROMS

SAME .4171 ON WASTE

GIVE US 10,000 ON IMPROVEMENTS

Wait on R/m call Hoff.